The Idaho IBM-PC Users Group

NEWSLETTER

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NEXT MEETING

Date : Tuesday, August 6
       note this is the first
       Tuesday and not the second.

Time : 7:00pm

Place: Borah High School
     : B-Wing Room 126

LIBRARY CATALOG INFORMATION

Well, it's done! I just got the new group public domaine software catalog back from KINKO'S, and aside from a few typo's missed during my editing, it looks looks fairly nice.

There will be two methods of acquiring the new catalog. First; I have the hard copies we just made at KINKO'S. Anyone who wishes one of these copies may purchase it at subsequent meetings for the paltry sum of $1.00. (covers our cost of publication, etc.). Then, there is the second, and infinitely more reasonably priced option; getting the catalog copied to your own diskette. We will copy the entire catalog, along with the BAT file necessary to download the catalog to your dot-matrix printer, for free.

If you have never used the DOS Commands, "MODE," and "COPY," the BAT file will serve as an introduction to these two DOS Utilities.

To utilize the diskette version, you must have a dot-matrix printer capable of 133 column printing and the time and paper necessary to print out the 23 pages

A REVIEW: SARGON III
Written by Allan Powell

I'm beginning to wonder...I'm beginning to wonder if I'm one of those people that enjoy humiliation. Why else would I buy this wonderful chess program and enjoy using it so much?

When I was seven years old, I was introduced to the game of chess. I don't believe that I was a gifted child, but it seems that the game's rules were so easy to learn and so I began my some what twisted affection for chess. It didn't take long for me to discover that a mere grasp of the rules of chess does not allow one to become a good or even fair chess player. Well, after all these years, you'd think that my shame of being defeated by nearly every friend, relative, and stranger I've played would be complete. No, I had to get SARGON III and now my computer can whip me also, in record time! Oh well, I guess that I should tell you about the program, not my problems.

SARGON can be played on nine levels from easy (for some) to extreme. The difference in the levels is the amount of time that the program can take to find it's best move, 5 seconds for level one to till the sun burns out in level nine. The board and pieces can be displayed in the colors of your choosing, but since a monochrome monitor is my fate I can only report of the strange green patterns produced if the default colors are changed. The display also includes a chess clock showing the total time

of data in the files. (Most dot matrix printers will handle the 133 column format.) In addition, the files may be read by most word-processors commonly used with the IBM. (It was written using WORDSTAR, then converted to a DOS/ASCII file.) The files are broken up into GAMES, COMMUNICATIONS, APPLICATIONS, and UTILITIES, thus, you may download only the portions which peak your interest.

If you forget to bring a diskette, we hope to have a few left over from our last order, and they will be available for $1.30 each to our members.

SARGON III

taken by each side to make their moves though its some what of a depressing reminder of your ability when after 40 moves your clock shows 90 minutes and SARGON's shows 2 minutes 40 seconds.

There are two graphic modes, 40 or 80 columns. I recommend the 40 column mode, the graphics are nicely done. The 80 column mode should only be of interest to those who enjoy abstract art. A play list may be toggled back and forth in the 40 column mode for reference, but in the 80 column mode it is displayed continuously causing the board to be displayed in a disappointing manner.

SARGON allows many options during play. You may change sides with SARGON, handy if you are get-ting trounced, but in my case I still seem able to snatch defeat from the jaws of victory. Make a silly, mistaken, or stupid move and gracious SARGON will allow you to take it back. Stuck? All knowing SARGON will suggest one for you if

that is your wish. When the game is over you may have SARGON replay it again so that you can see just where you made that brilliant move that led to your glorious victory, or in my case, where things started to fall apart. Other options include print game board, save or load game from disk, and autoplay (let SARGON defeat itself!).

The game disk also includes 107 of the worlds greatest chess games on the other side (it's a flippy) which SARGON will replay for you to study. For some these past great games will be educational, but for me it was inspiring to see someone else besides me tasting defeat for a change. The manual that accompanies the game disk is as well done as the program itself. It begins with a description of the rules of the game, which is quite easy to follow (remember I said the rules were the easiest part of the game). The second section of the manual deals with the logistics of the program; what key does what, when, and where and how to get things set the way you like them. Again, easy to under-stand, I did and you will too. Sec-tion three lists all 107 great games with a brief description of their interesting points. The final sec-tion is devoted to chess problems with their solutions. Most of the problems are like: Now that you've got your opponent begging for mercy, how do you crush him in the next three or less moves? Since I'm usually the one about to be crushed, these problems were only of academic interest to me. Oh well, maybe someday.

SARGON III is available for most computers. I reviewed the IBM version on a Tandy 1000. You'll need

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LIBRARY CHANGES

The reorganization of the group software library is rolling right along. The games disks have been completed, and non-operating programs found sent packing. I was unable to run all of them (over 430 programs), however I did manage to operationally check the majority of them. I found that we have some real nice games in our library. The process of setting up a library directory should be completed prior to the August 6th meeting.

As I wander through these diskettes I find many which I feel deserve more exposure. We have several excellent screen editors, some powerful Communications packages, a couple of good database programs, and the newest edition of PC-Write. In many cases, we have several editions of an application. I elected to keep all editions in the library, figuring that someone may prefer an older version to the newest update. In some cases, the newer updates have differing memory requirements, thus making them impossible for some pc's to run.

In coming issues, I will continue to introduce some of these packages to you via reviews in this column. If I review a disk or application in THE LIBRARY CARD, we have it in our library, and it's available for our members to copy.

DISK STATUS

The Diskettes we ordered have arrived! I will bring them to our next meeting and you may pick them up there. For any who need them and cannot make it to the meeting; call me, and we should be able to make some kind if delivery arrangements. Many are already spoken for, and another order will be made soon.

REVIEW: FSED.COM

FSED, (Full Screen Editor) is a language independent editor which may be used to build BAT, PASCAL, FORTRAN, C, or ASSEMBLER Source code, as well as normal text files.

The application in our library is Version 2.0, and we have seen no newer issues. The program itself is fairly straight-forward, however an extensive (33-pages) user manual is included upon the disk. The author makes no assumptions about your level of expertise, providing extensive, easy to understand documentation. The application is designed to operate in either the color or monochrome environment, however your monitor must be capable of 80 column display.

Upon entering the program, you are confronted with a screen consisting of an "End of File" line and a command line at the very bottom of the screen. The Editor is essentially a "what you see is what you get" application, with full screen access available via the edit arrow keys. The PgUp and PgDn key operate as expected, as well as Ins and Del. Line manipulation is also supported, with the ability to insert, copy, move, and delete lines or blocks of lines. Most of these operations are completed through the use of the Fkeys at the right of your keyboard. As you continue entering your document, the "End of File" line is pressed constantly downward, always pointing to the end of the file. Some other functions supported include, but are not limited to: search/replace, merge, cancel changes, set tab format, center text, etc. In all, this is a strong, friendly "Freeware" application which can become a very useful addition to your library.

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dbase II for Beginners
Written by Judy Robinett
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Dbase II has acquired an unsavory reputation of being a very difficult, user "unfriendly" software program to learn. Fortunately, I did not hear about these horrors until after the fact. This column will start at the beginning and proceed onward for those with no previous experience in data base management system (DBMS) programs. Questions and requests are quite welcome.

By 1984, dbase II was selling at the brisk rate of 2,000 copies a month. It's writer, Wayne Ratliff was a systems designer at the Jet Propulsion Laboratory in Pasadena, California who began marketing his DBMS under the name of Vulcan. Fifty copies had been sold when George Tate of Ashton-Tate became interested in marketing Vulcan as dbase II in 1980. By the way, there was no dbase I.

DBMS programs are utilized to gather, maintain, store, and manipulate information or data. A collection of usable data in a predetermined structure is a data base. Before creating a data base it is important to decide what information you need, what type or reports must be generated, etc. For example, if you wish to track information on employees you would want specific items such as: name, position, year-of-hire, and salary. By identifying this information you begin to visualize a structure for your data base. Your data base is a file of related pieces of information grouped in a specific structure. Each file can have 65,000 records with each record having a maximum of 32 fields.

	Field-1 (name)	Field-2 (salary)	Field-3 (yrhire)
record-1	Joe	7.75	82
record-2	Bill	12.50	71
record-3	Tom	9.60	78

dBase has three types of fields; Character for any printable console character, Numeric for numbers that you wish to perform calculations on, and Logical for a field that is either true or false.

To begin dBase type the word dbase following your computers prompt and press the enter or return key. You will then be asked to enter today's date as mm/dd/yy: you may enter the date or press enter/return key. (note: a 16-bit processor obtains the date from the clock and skips this step) You are now in dbase with a period or dot prompt ready for a command to be typed in. All commands in dbase are verbs. For example: Create, Display, Edit, Browse, Erase, and Quit. If you want a quick look at a specific commands ability type the word "Help" then your command verb. To exit out of dbase type Quit at the dot prompt and remove your disk. If you want dbase to stop what it is doing or you are stuck, press the escape key to get back to the dot prompt.

WHERE TO WRITE
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Questions concerning the group can be directed to any of the following people:

Librarian:Richard Chambers	939-9120
Treasurer:Tom McIntyre	344-7194
Editor:Bob Robles	342-7250

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CHOOSING A PRINTER
FOR YOUR PC (Part II)

In last month's newsletter, we discussed the impact style of printers and their applications relative to your specific needs. As promised, this month's topic will review their counterpart, the non-impact style of printer.

As the term implies, the non-impact printer uses an advanced form of printing technology that eliminates the striking of a fully-formed character (or a group of pins forming a character) against a carbon or inked ribbon in order to print a character on paper. Non-impact printers fall into one of three major categories; laser, ink-jet, or thermal-transfer. This article will examine each category of printer and its corresponding technology on an individual basis.

Laser printers, while not new to the Mini and Mainframe world, are making a big splash in the Microcomputer world. Previously too expensive to be connected to any but the larger machines, this situation changed dramatically in 1984 when Canon introduced its 8 page-per-minute, LBP-CX laser printer engine. For the first time, laser printing for under $10,000 became possible. First to adopt this remarkable new device was Hewlett-Packard who used it to build their Laserjet model. Recently, manufacturers such as Apple, Corona, Quadram, and others have followed H-P's example with models of their own.

Laser printers utilize the principle used by photocopiers, but harness laser light to do so. The laser printer electrostatically etches characters sent to it by the PC onto a selenium-coated print drum, similar to the print drum built into

most photocopiers. A sooty-black toner, released from a throw-away toner cartridge, adheres to the areas on the drum that the laser has charged. As a sheet of paper from a paper tray beneath the printer is fed and passes over the drum, the characters defined by the toner adhere to the paper by an application of pressure and heat.

Laser printers can print graphics as well as text. As can be expected, the graphics capabilities of today's generation of laser printers are reflected by their prices. The production of detailed graphics require laser printers to employ on-board controllers with as much as 500 kilobytes of memory. Consequently, the price of a laser printer capable of producing full-page graphic displays will be more than one with a limited-memory controller.

Graphics aside, the quality of text produced by the laser printer is outstanding. Near-typeset quality documents can be produced using this type of printer. Especially useful is the ability to exchange type font styles by the use of plug-in cartridges. Speed and quietness are two other advantages of using a laser printer. Depending on model and price, speeds of eight pages a minute (or more), with barely a whisper of noise, are easily achieveable. This is a big plus for use in the office environment where printer noise must be held to a minimum. The base price of the H-P Laserjet is $3500.00 with other brands and models varying according to their features. While no longer overly expensive, the PC user might

best maximize this type of printer in an environment allowing it to be connected and shared by several PC's, thereby spreading its usefullness and speed in a more cost-effective manner.

Ink-jet printing is a technology that has been slow to catch on in the PC arena. These printers use a process whereby drops of ink from an ink reservoir are sprayed onto the paper with enough force to penetrate the paper fibres. This may be a continuous stream, broken into droplets by an electromagnetic field, or a "drop-on-demand" system, in which individual drops of ink are propelled onto the paper by a piezoelectric crystal, which changes its dimension when electric current is applied. The crystal's response to the applied current allows it to function as a pump to force ink through the printhead.

One drawback to the use of this type of print technology is that the use of specially-hardened or clay-coated paper is required to prevent the ink from "bleeding" as well as to promote faster drying time. Where the laser printer can use ordinary plain paper to print on, this special paper is more expensive correspondingly driving up the cost per copy.

Speeds for ink-jet printers range between 20 CPS (characters per second) and 150 CPS. Resolution of print is very good with this type of printer and easily compares with that of the dot matrix "near-letter-quality" printers, but without the accompanying degree of noise. In addition, some models of these printers are capable of producing print in color when equipped with multi-jet printheads. The jets, each connected to a separate ink cartridge containing a different color, can be used to print color graphics. Prices for this type of printer start at a low end of $495 and progress upward to $3000.

The third category of printer we will discuss is the thermal-transfer printer. This technology employs a heat sensitive ribbon or a transfer sheet that is coated with a wax-like, pigmented ink. The printhead on the printer is designed to support a matrix of tiny heater "dots" which can be switched on and off at lightning speed. As the inked paper passes between the printhead and the paper to be printed upon, each dot required heats up and melts a tiny point of wax from the transfer sheet or ribbon onto the paper. This inked wax is then absorbed by the paper and combines with other dots to form a character. Print resolution is comparable to ink-jet and near letter quality dot-matrix printers with print speeds ranging from 20 to 300 characters per second. Like the two previouys types of printers discussed, thermal-transfer printers are both quiet and fast.

As you can imagine, using special ribbons or transfer paper can drive up normal operating costs. Ribbon consumption is especially heavy, for example, when printing four-color graphics. Offsetting these higher costs may be the initial cost of the printer itself. Currently, thermal transfer printers range in price from a mere $75 to a top-of-the-line model costing $4000. The average price falls somewhere in the $400-$500 bracket, hundreds of dollars less than the average ink-jet and thousands less than the average laser.

PROGRAMMING IN C
Written by Bob Flagg

The computer industry is a fast paced and rapidly changing entity. It often seems that computer hardware and software are obsolete by the time the products hit the marketplace. Needless to say, this can frustrating if you are a data-processing professional or person who depends heavily on computers. If you are a programmer, or are thinking of becoming one, choosing the proper computer language for a given project can mean the difference between success and endless pain and hardship. This article is an attempt to shed some light on the advantages and disadvantages of the many computer languages available and one language in particular - the "C" programming language.

Many people often ask, "What is the best computer language?" There can be but one answer to such a question: "It depends." The "best" language is going to depend on several factors:
1. Experience of the programmer
2. The computer hardware
3. The purpose of the program
4. The complexity of the program
5. The specific requirements of the program, e.g. speed

All languages have both strong points and weak points. A person with no programming experience wishing to learn how to program would do well to start with a language such as Pascal, Logo or certain versions of BASIC. Contrary to popular belief, BASIC is a very poor first language. If a person's intent is only a rudimentary understanding of programming, BASIC may be just fine. If, however, a persons intent is becoming a professional programmer, the inherent non-structured, non-standardized and non-procedural nature of BASIC could do the would-be programmer more harm than good. The vast majority of BASIC programs I have seen consist of confusing - if not incoherent - "spaghetti" code, leaden with countless goto statements. To be fair, there are versions of BASIC that have been radically modified to support structured programming concepts.

Another aspect of choosing a language entails understanding the limitations of the host computer hardware. Some large, complex languages developed on and for main-frame computers such as PL/I and COBOL have not become popular micro-computer languages. The reasons for the lack of the migration of these languages down to the micro world stems primarily from hardware limitations. Micros, especially the early ones, characteristically have limited main memory and disk storage requirements and do not easily support the larger language environments which were developed to optimize human, not hardware, resources.

Perhaps the most important consideration when choosing a language is the purpose and requirements of the program itself. For example, a program that gathers information from the analog world of humans and converts it to the digital world of computers may need to operate at the greatest possible speeds; Thus, such a program may necessitate the use of the computer's assembler language - the very soul of the machine. A program to produce film quality animation may also require that parts (hopefully as little as

possible) of it be written in assembler. If the purpose of the program is to generate reports from a database, the the best language may be the fourth generation "natural languages" provided with the database program. Knowledge Man, DBASE III and RBase are examples of such languages. If the programming project is going to be a large one, languages which allow programs to be "broken-down" into smaller sections to be worked on by many programmers like ADA, C, and Modula-2 are best bets. Oh, and if you are planning on writing computer programs for the Department of Defense. you had better learn ADA; The DOD has mandated that all of its programs are going to be written in ADA.

The language quickly becoming the micro-computer industry standard is the C programming language. Invented at Bell Labs in the late 60's by Brian Kerninghan and Dennis Richie, C offers the programmer a powerful program development environment. Of its many strong points, the most notable are its flexibility, separate compilation, extensibility and portability. Well, what does all that mean? Fexibility is just the ability of the programmer to be able to do virtually anything he wants with the language, from writing accounting systems to missile guidance systems. Separate compilation allows the programmer to break up the program into small parts which can work on their own; Thus, program development time is greatly enhanced. Many languages are very restrictive and do not allow the programmer to do certain things. Extensibility is a concept that says "If the language will not do this, then I will write a function that will do it." With C the programmer gets the advantage of a "high level" structured language with the power of a "low level" assembler. Portability is perhaps the most important feature of the C language. Portability is a measure of the ease of which a program can be moved from (or "ported") one computer to another, totally different, computer.

Let's examine this portability issue a little further. When a C program is written, it produces a file called a source file the source file is then compiled producing an object file. The object file is then linked with a library of functions to produce an executable program. Now, if I write a program for an IBM PC, how do I get the program to work on an Apple IIe? Well, if I use compiler X and library Y, all I need do be sure that compiler X and library Y are made for the Apple IIe. How do X and Y get on the Apple IIe? Well because the C language (i.e. all those functions listed in the book by Kerninghan and Richie) is so small, it is very easy to do. In fact, the availability of C compilers for micros is probably second only to BASIC. But, unlike BASIC, C is far more standardized; Because of this standardization, I can be reasonably assured that my programs will run with very little modification. This is not so with BASIC, of which there are more flavors than all the icecream shops in the world.

The following listing is a function I have extracted from a program. It is germane to this article in several respects: One, it has almost every C syntactic construct; And two, it's neat. The function will take a date and and or subtract a specified number of days from the date. While I have tried to

C Programming

document it as much as possible, I don't expect anyone who is not a program-
mer to understand it (Or this article?!). I just wrote it so it may have
some bugs in it; If you find a bug, give me a call.

(Editors note: The following program will be available for downloading on
Gem State Data Access BBS - 24hrs a day - (208) 375-2243.)

```
/**************************
*
*       CHANGEDAY(&out_day,&in_day,numday,op)
*
*                       This function will add or subtract a given number
*                       of days from a string date. The date must be in the
*                       form MM/DD/YYYY.
*                       The function is passed four arguments:
*
*       char out_day[11] - the incremented date
*       char in_day[11]  - the date to be incremented
*       int numday       - the number of days to increment the date
*       char op          - the operation to be performed 'A' for add,
*                          'S' for subtract
*
*       RETURNS - void
*
***********************/


changeday(out_day,in_day,numday,op)
char out_day[];             /* this declares the local variables */
char in_day[];
int numday;
char op;

{
        int testday;
        int year,month,day,leap,length;
        static int days_month[2][12] = {
                31,28,31,30,31,30,31,31,30,31,30,31,
                31,29,31,30,31,30,31,31,30,31,30,31
                };

        month=year=day=leap=length=0;
        sscanf(in_day,"%2d",&month); /* sscanf converts a string to int */
        sscanf(&in_day[3],"%2d",&day);
        sscanf(&in_day[6],"%4d",&year);

        /*  determine if the year is a leap year    */
        leap= (year % 4 == 0) && (year % 100 != 0) || (year % 400 == 0);

        if (op == 'A')              /*then add numdays to out_day */
```

```
      {
        while ((testday = (numday + day)) > days_month[leap][month-1])
        {
            /* note "=" means assignment & "==" tests for equality */
            if (month == 12)
            {
                numday = numday - days_month[leap][month - 1] + 1 - day;
                day =1;
                month = 1;
                ++year;            /* "++" is the uninary increment operator */
            leap= (year % 4 == 0) && (year % 100 != 0) || (year % 400 == 0);
            }
            else
            {
                numday = numday - (days_month[leap][month-1] + 1) - day;
                day = 1;
                ++month;
            }
        }
        day += numday;
      }
      else
      {
        while (numday >= day)
        {
            if (month == 1)
            {
                numday = numday - day;
                month = 12;
                day = days_month[leap][month-1];
                --year;
            leap= (year % 4 == 0) && (year % 100 != 0) || (year % 400 == 0);
                }
                else
                {
                        numday = numday - day;
                        --month;
                        day = days_month[leap][month-1];
                }
        }
        day -= numday;  /* set the day */
      }
    /* the following sprintf will convert our integers back to a string */
    sprintf(out_day,"%02d/%02d/%4d",month,day,year);
    out_day[10] = '\0'; /* the '\0' is the "NULL" */
                        /* in C all strings end with the NULL character */
}
```

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At least four months have passed since I first talked about modems and communications. With more and more PC users joining our group its time to revisit the basics of modems and some of their features. We can start by look at the simplest form of communications. Picture, if you will, two kids playing with two tin cans connected by a peace of waxed string. As one child talked into a can at one end of the string the other could sometimes hear what was said.

Now take the modern telephone, we can dial a number and talk to someone miles away and it sounds as if they were in the same room with you. The simple sounds of your voice are turned into electrical signals that are passed along a pair of wires to the other telephone. At that end it produces the same sounds that were spoken through the ear of the receiver. It is important to keep in mind that this sound is just a form of noise.

A modem is a device that converts the digital signals from a computer to analog tones or sounds that are common to those used on a telephone. These tones can be sent through the telephone line to an other modem which will convert it back to digital signals. At this point the other computer will be able to understand what the first was saying. In this simple sense all modems do the same thing. However, all modems are not alike and some cannot even talk to each other.

First, there are two basic types of modems; Synchronous ones and Asynchronous ones. The first is a modem that is dependent on timed events to control data flow. This data usually is sent in logical blocks and is associated with either SDLC or BISYNC protocols. The second type uses a method of start bits and stop bits to control data flow. Because of this it commonly termed as START/STOP protocol. This is the most common form of protocol used between PC's today. SDLC and BISYNC are most often associated with large mainframe computers. I will concentrate on the Async type of modem in this discussion.

Just like any thing else, where there is competition for a market place we will find a large diversity in the products sold in that market. This is the case with Async modems available in today's market. Modems are available with a variety of features and are meant to fit a multitude of budgets. The one thing that determines price more that anything else is the speed.

You can find Async modems running speed as low as 110 bps (bits per second) to as high as 9600 bps. Async modems that run 4800 and above are really two modems in one. They convert Asynchronous to Synchronous so that the data flowing on a line is in a Synchronous format. At the other modem it is converted back to the original form of Async. This means that both modems must be of the same manufacturer and does not give you much flexibility. The reason for this type of modem is to get to speeds that are not practical in a STOP/START protocol. As the speed of a modem increases the tones used used on a line are increased in pitch. This is like speeding up a 45 RPM record to 78 RPM, and the higher the tones the harder it is to distinguish them. In fact common crackle, pop, and frying sound of a bad phone connection will be mistaken for data at 1200 bps and

2400 bps. At the lower speeds it is not as much of a problem.

This can be overcome by using techniques like X-MODEM protocol which does a form of error detection and retransmition of bad data. This protocol is becoming a standard in the realms of BBS's and is supported by most of the most popular communications packages. These packages also support one of the other features of modems we might be interested in called AUTO-DIAL. This is the ability of the Modem to dial a telephone number for you. This number can be stored in the modem or in the PC. The vendor of a modem will supply a set of commands used to control dialing from the modem. Perhaps the most common are the ones used with the HAYES-SMART MODEM. The important thing is that you must decide if you phone is PULSE (rotary dial), or TONE (push button). Some auto-dialers will only support TONE.

There are a wealth of other features, and some can be very expensive. For example, AUTO-ERROR correction. This can add as much as $300 to a modem. For the most part AUTO-DIAL and SPEED should be your major concern. It should be noted that a plan modem without any frills does cost less. Since cost is usually a major concern, you must decide how much you pocket book can bear.

Just this week, in the current issue of PC-WEEK, there was a short news item about CERMETEK lowering its price on its "Info-Mate 1200 TPC" a 1200/300 bps modem with full Hayes compatibility to $198.00. Other price found in the issue reflect the following;

US Robotics "Password" 1200 ext. Auto/dial	$199.00
US Robotics "Courier" 2400 ext. Auto-dial	$439.00
Prometheus "pro-Modem" 1200 int. Auto-dial	$252.00
Prometheus "pro-Modem" 1200 est. Auto-dial	$279.00

The price of Modems is not expected to fall much more than we have seen to date. They are probably going to stabilize, and you will see more functions being added--at the same price. Given the price difference related to speed the 1200 bps is still the best buy. If 2400bps prices continue to fall they might soon be something to consider (for those who spend a large amount of time and money on phone calls to BBS's).

I would again like to remind every one who has an interest in purchasing a modem to please fill out the questionnaire, and get it to me, or to one of the group's officers. We would like to get a group buy going, and we have had only moderate response. I know that you who have already filled the form out and turned it in must be waiting with bated breath for us to tell you some good news. I apologize for the delay, but we must have as many participants as possible to in order to achieve the best buy. For this reason, we encourage anyone interested to let us know so we can get the show on the road. Enough of the sales pitch and on to another subject.

This month I visited a BBS in Charelston West Virginia, by modem of course. The BBs is not as large

COMMUNICATIONS CORNER
(continued from previous page)

as some, but the quality is still there. You can find this gem by calling (304) 344-8088 and using either 1200bps or 300bps. The one thing about this BBS that makes it nice is its current versions of some real old goodies such as PC-WRITE. the following is a selection of just a few:

PC-WRITE	Version 2.5 word proc.
PC-TALK	Original and revised
RBBS-PC	Version 12.4
QMODEM	New competitor to PCTALK
PROTECT's	Many Unprotection files these should only be used to make legal backup and to allow you to run on hard disk.
GCOPY.EXE	Group copies
GCOPY.DOC	Documentation for GCOPY
GDEL.EXE	Group deletes
GDEL.DOC	Documentation for GDEL
CAT.COM	Like VM/CMS FLIST
CAT.DOC	Documentation for CAT
CAT-FD.COM	Patch for floppy disk
CAT-HT.COM	Patch for Hard disk
VPRINT.COM	Redirect print to disk
VPRINT.DOC	Doc. for VPRINT

Give this BBS a try. It has some very nice games, and other utilities too numerous to mention.

That's all for now, but we all hope to see you at our next meeting.

NEW BBS IN TOWN
There is a new computer advertising service in town. This service is free to callers. Their data line is 323-1122. They are offering two free weeks advertising as an introductory offer. Interested advertisers can call Lee Iams at 376-7225 for more information. Future discounts will be available to group members.

SARGON III
(continued from page 2)

at least 64K, single disk drive, and a desire to have the best chess program available to use this software. Price varies, but let me steer you to Bruce Burns at R & L Data for the best price in the area (with the club discount).

Did I mention the manual also includes a membership form allowing to join the U.S. Chess Federation? I haven't sent mine in yet, but if I ever beat this thing two times in a row on level two I just might consider it!

Choosing a Printer
(continued from page 6)

Which printer is best for you? It really depends on your individual tastes, application (do you need typeset quality?), and your pocketbook. Above all, once you think you have made your choice, be sure that the software you are presently using (or are contemplating purchasing) will be compatible with your new printer. Check with the printer vendor. Most will allow a test of your software on the printer before you put down your hard-earned cash. Take the opportunity to ask questions to determine if escape codes need to be imbedded in your text to take advantage of any special features supported by the printer. Some printers being sold today use font cartridges that simply plug into the printer to provide different type styles, thereby eliminating the need to know how to set up escape codes. Remember, the better informed you are before making your purchase, the more satisfied you'll be in the long run.

D I S C O U N T S

The following individuals and local merchants are offering discounts to any registered members.

CompuShop is offering a 10% discount off the normal CompuShop retail price on all stock to registered IPUG members.

Bruce Burns (R&L Data) is personally extending a 15% discount off everything in the store, except the AT line, to all registered members. note: you must deal directly with Bruce.

Tim Mead (Computer Concepts) will offer the Leading Edge Word Processor, Speller and Mail Merge program to any card carying member for $175 which is $75 off the normal price of $250.

Borbaki Inc. will sell their Directory Command System called 1Dir (pronounced wonder), which normally retails for $95, for $75 to club members. Thanks to Chris & Cindy.

*** SPECIAL ***

Multijob is a program that will allow your IBM-PC to run up to 9 programs at one time. For instance, if you have a hard disk you could be running a sort program in one partition, a transaction update in the second partition, and still keep your computer free to work on a Lotus 123 spreadsheet or Wordstar! B & L Data, the makers of Multijob, are going to be closing their doors soon. They are offering Multijob, which normally sells for $199 to any card carying member for only $30. This will not include any packaging. For your money you will receive a disk containing Multijob and a manual to explain how to run it.

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** FOR SALE **

IBM PC system with 192K, color monitor, color graphics, parallel printer board, 2 dual density drives, and PC DOS 2.1. Total cost - $2800, or with Epson MX-80 printer, cost is $3000. Contact Rich Brown 386-5506 days or 322-7720 eve.

*** FOR SALE ***
For the IBM or compatible:

1. FAST GRAPH PKG		$35.00
2. HOME ACCT. PLUS		25.00
3. PERFECT CALC		35.00
4. PERFECT FILER		75.00
5. PERFECT WRITE/SPELL		85.00
6. PERFECT LINK		20.00
7. VOLKSMODEM 12	300/1200	210.00
8. IBM SERIAL CARD		50.00
9. IBM PARALLEL CARD		50.00

For the Apple or compatible:

1. SILENTYPE PRINTER W/CARD $100.00
   If interested in the IBM or Apple equipment, contact Dave Jameson at 386-6137 days or 376-2206 after work hours or weekends.

****** WANTED ******
Wish to purchase an expansion set for an IBM-PC Jr. Would like an additional 128K memory and a second disk drive. Please call Rick Barnes at 344-7914 during business hours.

****** FOR SALE ******
APPLE 80-COLUMN TEXT CARD for the Apple IIe, complete with documentation. Fits in Aux #3 slot. This is the small card with no additional memory aboard. $40.00. Contact Rich Chambers 939-9120.

****** WANTED ******
Looking for an AST Six-Pac with 64K memory or less. Game Port not required. Contact Rich Brown at 386-5506 Days, or 322-7720 evenings.

***** MODEM QUESTIONNAIRE *****

If you are interested in purchasing a modem in the near future, complete the form below and return it to The Idaho IBM-PC Users Group. P.O. Box 9136, Boise, Idaho 83707.   As our membership grows, so does our buying power so always check with the group before making any major purchases.

FIRST NAME:_____ LAST NAME:_____

WISH TO BUY A MODEM   YES [__]   NO [__]   ONLY IF PRICE <= [_____]

***** WHAT MODEM OPTIONS DO YOU DESIRE *****

SPEED: 2400bps [__]   1200bps [__]   300bps [__]   OTHER [_____]
ASYNCHRONOUS   [__]   SYNCHRONOUS [__]   AUTO-DIAL [__]   AUTO-ANSWER [__]
INTERNAL CARD [__] EXTERNAL MODEM [__]

***** WHAT TYPE OF PC DO YOU HAVE *****

  IBM PC/JR [__]   IBM PC [__]   IBM PC/XT [__]   IBM PORTABLE [__]
    WANG PC [__]   COLUMBIA [__]   COMPAQ [__]   LEADING EDGE [__]
   APPLE II [__]   APPLE II/E [__]   APPLE II/C [__]   APPLE III [__]

OTHER [_____]

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TECHNICAL WRITERS	HOW TO SUBMIT AN ARTICLE

TECHNICAL WRITERS

     We now have these writers contributing informational columns for our newsletter.

Rich Brown
Systems Analyst

Bob Flagg
Programmer/Analyst

Mike Hayhurst
Lead Systems Programmer

Mark McNee
Programmer/Technician

Allan Powell
Gameologist

Judy Robinett
Statehouse

We are very fortunate to have these folks donating their expertise to our PC group.

HOW TO SUBMIT AN ARTICLE

If you would like to contribute to our newsletter on a regular or occasional basis, please contact us.

When submitting an article, please put it on a floppy diskette with your name printed on it. The diskette will be returned at the following meeting. If you wish, we will supply the diskette. Articles may be submitted to Bob Robles or Richard Chambers. If you have a modem, you can submit your article via the phone line. Our deadline is the end of the month prior to publication. The ideal format to submit them in is single column and no hyphenation.

Many members of our group are computer professionals. If you need any custom computer programming, chances are there is someone here who can help you. We have consultants who offer discounts to group members. For more info contact Bob Robles at 342-7250.